REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-8 are presently active in this case, Claims 1 and 5 having been amended by way of the present Amendment.

In the outstanding Official Action, the drawings were objected to under 37 CFR 1.83(a). The claims have been amended to change "orifices" to "orifice." Such features are depicted in the current figures. Thus, the Applicants request the withdrawal of the objection to the drawings.

Claims 5-8 were rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention. Claim 5 has been amended to indicate that the second feed tube cooperates to define the first annular duct, as is described and depicted in the specification. Accordingly, the Applicants respectfully request the withdrawal of the non-enablement rejection. Claim 1-4 were objected to for the reasons indicated in item 4 on page 3 of the Official Action. Claim 1 has been amended to change "orifices" to "orifice." Accordingly, the Applicants request the withdrawal of the objection to Claims 1-4.

Claims 1-6 and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Goeddeke (U.S. Patent No. 6,351,948) in view of either Sakurai et al. (U.S. Patent No. 4,216,908) or van Os (U.S. Patent No. 3,972,690). Claims 5, 6, and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Goeddeke in view of either Sakurai et al. or van Os

and further in view of Alary et al. (U.S. Patent No. 5,642,621). For the reasons discussed below, the Applicants request the withdrawal of the obviousness rejections.

The Applicant submits that a *prima facie* case of obviousness has not been established in the present case because the references, either taken singularly or in combination, do not teach or suggest all of the claim limitations.

Claim 1 of the present application recites a system for cooling an injector where the system comprises means for delivering a cooling fluid comprising a third tube surrounding the second tube and having a tubular separation element connected thereto which is introduced in the annular channel of the cylindrical endpiece so as to form two annular spaces in which the cooling fluid can flow over 360° all the way to the end of the injector, wherein *the two annular spaces include an inner annular space configured to receive the cooling fluid from a fluid source and an outer annular space configured to return the cooling fluid to the fluid source*. Claim 5 recites a cooling system for a main injector, where the cooling system comprises a tubular separation element that is fixed upstream to a third tube surrounding the first and second feed tubes and *co-operating firstly with the second feed tube to define a first annular duct which brings the cooling fluid from a fluid source via the first annular space to the endpiece*, and *secondly with an outer wall of the injector to define a second annular duct which returns the cooling fluid to the fluid source via the second annular space*.

The Official Action indicates that the Goeddeke reference does not teach an annular channel surrounding the annular injection piece with a third tube and tubular separation element for delivering a cooling fluid.

The Sakurai et al. reference describes a burner for liquid fuel that includes a water-

cooled or air-cooled jacket (6) that is provided around the burner. As depicted in Figure 1, cooling jacket (6) includes an outer passage that is partially defined by the outer surface of the burner and that presumably receives cooling fluid from a cooling fluid supply. The cooling jacket (6) also includes an inner passage that is partially defined by a wall of an auxiliary supply passage and that presumably returns cooling fluid to the cooling fluid supply. For example, Claim 1 of the present application recites two annular spaces for cooling fluid that include an inner annular space configured to receive the cooling fluid from a fluid source and an outer annular space configured to return the cooling fluid to the fluid source. Furthermore, Claim 5 recites a cooling system comprises a tubular separation element that co-operates firstly with the second feed tube to define a first annular duct which brings the cooling fluid from a fluid source via the first annular space to the endpiece, and secondly with an outer wall of the injector to define a second annular duct which returns the cooling fluid to the fluid source via the second annular space. Accordingly, the combination of the Goeddeke and Sakurai et al. references does not render Claims 1 and 5 obvious.

The van Os reference a process for the gasification of oil containing finely dispersed solids by partial combustion in a hollow reactor. The inlet device (2) described in the van Os reference includes a water jacket (7) having an inlet (8) and an outlet (9) for circulating cooling water. The water jacket (7) of the van Os reference is provided at a position below a central pipe (3) for supply of the liquid hydrocarbon and below a channel (4) for the oxygen-containing gas. The water jacket (7) of the van Os reference does not appear to disclose the annular ducts or annular space defined in the claims, but rather appears to shown a generally open cavity that swirls the water about the jacket (7). The van Os reference clearly does not

disclose two annular spaces for cooling fluid that include an inner annular space configured to receive the cooling fluid from a fluid source and an outer annular space configured to return the cooling fluid to the fluid source, as recited in Claim 1 of the present application. Furthermore, the van Os reference does not disclose a tubular separation element that co-operates firstly with the second feed tube to define a first annular duct which brings the cooling fluid from a fluid source via the first annular space to the endpiece, and secondly with an outer wall of the injector to define a second annular duct which returns the cooling fluid to the fluid source via the second annular space, as recited in Claim 5 of the present application. Accordingly, the combination of the Goeddeke and van Os references does not render Claims 1 and 5 obvious.

Regarding Claim 5, the Alary et al. reference is cited for the teaching of fuel injectors for a two headed combustion chamber. The Applicants submit that the Alary et al. reference does not supplement the deficiencies in the teachings of the Goeddeke, Sakurai et al., and van Os references described above.

Accordingly, the Applicants respectfully request the withdrawal of the obviousness rejections of Claims 1 and 5.

Claims 2-4 and 6-8 are considered allowable for the reasons advanced for Claims 1 and 5 from which they depend. These claims are further considered allowable as they recite other features of the invention that are neither disclosed, taught, nor suggested by the applied references when those features are considered within the context of Claims 1 and 5.

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully Submitted,

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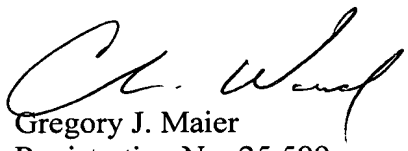

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